

CLAIMS

1. A polishing method characterized by comprising the step of polishing a work while allowing a part of a dome-shaped portion of an elastic polishing body matching the curves shape of a concaved work surface of said work selected from among a plurality of said elastic polishing bodies having said dome-shaped portions different in curvature and larger in area than said concaved work surface of said work to come into contact with the generally entire surface of said work surface.

2. The polishing method as set forth in claim 1, wherein

the polishing is conducted by causing the curvature center of said dome-shaped portion to coincide substantially with the swing center of said work while putting said work into a swinging motion and a rotating motion and putting said elastic polishing body into a rotating motion.

3. The polishing method as set forth in claim 2, wherein

a polishing body mount jig for holding said elastic polishing body and for causing the curvature center of said dome-shaped portion to coincide substantially with the swing center of said work when mounted to a polishing

device is used.

4. The polishing method as set forth in claim 3, wherein

said polishing body mount jig includes a plurality of kinds of polishing body mount jigs different in the height at which said elastic polishing body is held, according to the curvatures of said dome-shaped portions of said elastic polishing bodies.

5. The polishing method as set forth in claim 1, wherein

said dome-shaped portion of said elastic polishing body is composed of a elastic sheet formed in a hollow dome shape, and the polishing is conducted while exerting a pressure on the inside surface of said elastic sheet and thereby imparting a tension to said dome-shaped portion.

6. The polishing method as set forth in claim 1, wherein

said work is polished with a polishing pad adhered to the outside surface of said dome-shaped portion.

7. A polishing device comprising a work holding and driving unit for holding a work and putting said work into a rotating motion and a swinging motion, a polishing body mount jig for holding an elastic polishing body

having a dome-shaped portion, and a polishing body holding and driving unit to which said polishing body mount jig is detachably mounted and which rotates said elastic polishing body through said polishing body mount jig while causing the swing center of said work holding and driving unit to coincide substantially with the curvature center of said dome-shaped portion.

8. The polishing device as set forth in claim 7, wherein

the holding position for said elastic polishing body can be changed according to the curvature of said dome-shaped portion of said elastic polishing body, and the curvature center of said dome-shaped portion can be made to coincide substantially with said swing center.

9. The polishing device as set forth in claim 8, wherein

the change of said holding position for said elastic polishing body is performed by a change among a plurality of kinds of said polishing body mount jigs different in the height at which said elastic polishing body is held, according to the curvature of said dome-shaped portion of said elastic polishing body.